

JPRS 77166

14 January 1981

USSR Report

AGRICULTURE

No. 1264



FOREIGN BROADCAST INFORMATION SERVICE

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UDC 658.7.631.576.331.2:633.12

GREATER ATTENTION URGED FOR RAISING, PROCESSING BUCKWHEAT, MILLET

Moscow *MEKHANOL'NO-ELEVATORNAYA I KOMBIKORMOVAYA PROMYSHLENNOST'* in Russian No 9, Sep 80 pp 7-8

[Article by D. Tenyayev, state inspector, USSR Ministry of Procurement: "Special Attention to Receiving and Preserving Buckwheat and Millet"]

[Text] Buckwheat and millet are just a small part of the total volume of state grain purchases in the USSR, about three percent. This does not diminish the significance of these crops for the national economy; on the contrary, it demands that agricultural and procurement agencies devote special attention to seeing that established state purchase plans are fulfilled.

Speaking at the July 1978 Plenum of the CPSU Central Committee, Comrade L. I. Brezhnev, General Secretary of the CPSU Central Committee and Chairman of the Presidium of the USSR Supreme Soviet, emphasized: "We must make broader use of our potential for expanding grain planting in certain regions. This refers especially to the Nonchernozem zone, where the grain crop area can be enlarged at the expense of less productive annual grasses and other crops.

"Even more attention must be focused on raising millet, buckwheat, rye, and grain corn. Mainly farms clearly underestimate these crops."

This statement is particularly important for agricultural agencies and grain receiving enterprises, because the level of production of buckwheat and millet in recent years has not been adequate to meet the plan for state purchases of these crops.

For a number of years now the RSFSR, Ukraine, Belorussia, and Kazakhstan have not fulfilled their plans for state purchases of buckwheat and millet because of reductions in planted area. The average area planted with buckwheat in 1976-1979 was 186,000 hectares less than the average annual level in 1966-1970. In addition, some farms plant unregionalized seed varieties.

In recent years the grain receiving enterprises have been receiving a large volume of buckwheat and millet with high levels of weeds, rust, and broken and crushed grains, which has a bad effect on groats production when they are processed.

Correct formulation of batches of grain at the farm threshing floors and at grain receiving enterprises is very important for supplying the groats industry with high-quality buckwheat and millet grain. Specialists from the grain receiving enterprises should help kolkhoz and sovkhoz workers in this matter.

A price supplement of 10 percent over the price of regular grain is paid for buckwheat of the most valuable varieties that meets established quality conditions; for the most valuable millet varieties the price supplement is 120 rubles per ton of grain meeting base conditions.

The USSR Ministry of Procurement and the USSR Ministry of Agriculture ratified the following most valuable buckwheat varieties for planting in 1980: Aelita, Bogatyr', Bol'shevik (tetraploid), Iskra (tetraploid), Kalininskaya, Krasnostreletskaya, Mayskaya, Prikamskaya, Skorospelaya 81, Salyanskaya, Chishinskaya, Shatilovskaya 4, and Shatilovskaya 5. The buckwheat grain of these varieties that is turned over to grain receiving enterprises should be of normal color and odor with no more than four percent broken grains and 0.5 percent spoiled grains.

The most valuable millet varieties are: Volzhskoye 3, Veselopodolyanskoye 38, Irtyskoye, Kazanskoye 506, Kamyshinskoye 67, Mironovskoye 51, Mironovskoye 94, Orenburgskoye 42, Orlovskoye 92, Podolyanskoye 24/273, Raduga, Saratovskoye 3, Saratovskoye 853, Skorospeloye 66, Start, Khar'kovskoye 25, and Khar'kovskoye 65. The grain of these varieties should not contain more than six percent broken and sprouted grains (including no more than one percent sprouted grains and 1.5 percent hard-to-separate grains).

Experience shows that the employees of agriculture and grain receiving enterprises at those farms and in those regions where proper attention is given to the production and procurement of groats crops achieve good indicators. Thus, the kolkhozes and sovkhozes of Altayskiy Kray have done very well in increasing the production and sale to the state of buckwheat. The average annual gross production of this crop there in 1976-1979 was more than 70,000 tons. The kolkhozes and sovkhozes of Sovetskiy, Krasnogorskiy, and Troitskiy rayons in the kray fulfill their plans for sale of buckwheat to the state every year.

Buckwheat is a highly productive and profitable crop at farms in Nezhinskiy Rayon, Chernigovskaya Oblast. High yields enabled the rayon to overfulfill its five-year plan for sale of buckwheat to the state in four years.

The kolkhozes and sovkhozes of Krasnokutski Rayon, Saratovskaya Oblast sold the state a total of 77,700 tons of millet in 1976-1979 as against a plan figure of 22,500 tons; this was 340 percent of the plan. In certain years the yield there reaches 24.6 quintals per hectare, and the average for the first four years of the 10th Five-Year Plan was 15.6.

Additional steps have been taken this year to insure timely and complete fulfillment of contract obligations for sale of groats crops to the state. Broad use of the practices of the farms that get high, stable yields has been implemented.

It is important for the grain receiving enterprises to insure uninterrupted receiving of the buckwheat and millet, proper placement in storage, and complete preservation of the crop. Grain from the most valuable varieties of these crops which meets the established quality standards should be stored separately. Moist and underdeveloped buckwheat and millet grain should be put in storage facilities equipped for active ventilation. It is best if the receiving and processing of the buckwheat and millet grain is done in a continuous process with timely drying.

Buckwheat and millet grain should be stored in dry, well-aired areas with constant observation of moisture and temperature.

The principal measure to insure preservation of freshly harvested buckwheat and millet is reducing its moisture content. For prolonged storage buckwheat should be dried to 13-14 percent moisture and millet to 12-13 percent.

It is essential to envision steps during postharvest processing of the grain to reduce damage during transportation. Grain should be fed into the buckets of bucket elevators against the direction of movement of the chain. The buckets should move slowly. Chutes should be used instead of dropping the grain from significant heights. Other such steps are also possible. When the grain is moved to winter storage it must be cooled; the best way to do this is with active ventilation equipment.

Studies at the All-Union Scientific Research Institute of Grain Growing have shown that ventilation achieves good results when air is fed to the pile at at least 30 cubic meters per ton per hour for grain with 16 percent moisture, 60 cubic meters per ton per hour for grain with 18 percent moisture, and at least 80 cubic meters of air per ton per hour if the grain has 22 percent moisture.

The normal depth of the pile of buckwheat and millet should not be more than two meters, and when the moisture content is above 20 percent it should not be poured more than 1.6 meters deep. Ventilation of the grain should not be stopped until the temperature of the grain in the top layer of the pile is close to air temperature.

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AGRO-ECONOMICS AND ORGANIZATION

PAYMENTS FROM BUDGET FOR PRICE DIFFERENCES

Moscow FINANSY SSSR in Russian No 10, Oct 80 pp 50-53

[Article by G.I. Klimenko: "Payments From the Budget for Price Differences"]

[Text] In recent years, considerable material and financial resources have been allocated for strengthening the logistical base for production and for intensifying the interest of farms in increasing their production of goods. Increases have taken place in the procurement prices for livestock, poultry, rabbits and milk and 50 percent bonuses have been introduced for livestock husbandry products sold to the state over and above the annual plan and also 35 and 50 percent bonuses for young large-horned cattle stock of increased weight, depending upon the weight categories differentiated by union republics. Additional payments were established for adding to the procurement prices for sheep of the Romanov strain and their hybrids, having wool and part-wool coats which meet the standard for sheepskins and fur coats. Price deductions were also established for sheep having wool and part-wool coats which do not conform to the mentioned standard or which have low quality wool coats (with the exception of the karakul and gissar strains).

The accounts for milk suppliers are maintained based upon prices and taking the grade or quality into account. For 1st class refrigerated milk, delivered at a temperature of no higher than $+10^{\circ}\text{C}$ at the moment of acceptance, an additional bonus is paid amounting to 5 rubles per ton of milk having the basic fat content. Other types of additional payments and price deductions for stimulating improvements in the quality of livestock husbandry products were defined for livestock and milk.

In accordance with the existing system, the value for livestock and milk applies to the production costs for goods, according to the intra-republic accounting prices for livestock, poultry, rabbits and also milk and cream. The difference between the actual value of livestock, poultry, rabbits, milk and cream, according to the procurement prices together with the established additional payments and bonuses, and their value according to the accounting prices is regulated and compensated for by means of appropriations allocated for this purpose from the budgets of the union republics. Each year, considerable appropriations are called for in these republics for compensating for the difference in prices. Thus the financial organs must exercise constant control to ensure that the state funds are paid out in the correct manner.

Of the overall volume of payments made to farms for livestock and milk, a large proportion include bonuses added on to the procurement prices for above-plan sales.

It is known that during the Tenth Five-Year Plan the volumes for livestock and milk sales to the state were established for the kolkhozes and sovkhozes in accordance with a firm procurement plan. Above-plan procurements are called for from a national economic standpoint. The financial organs must carry out checks on the correctness of procurement planning by individual farms, while taking into account the objective conditions for their development. Indeed, at times some farms plan unjustifiably low volumes for the sale of livestock and milk compared to the previous years, while the plans of other farms are inflated and unrealistic. As a result, some farms over-fulfill their plans and illegally obtain bonuses for the above-plan sale of livestock, while others, despite the fact that they achieved considerable improvements in the production and state procurements of livestock husbandry products, compared to the previous year, are undeservedly deprived of the right to receive incentive bonuses. This lowers the stimulating effect of bonuses issued for above-plan sales.

Disruptions in the system for planning procurements of livestock and milk were revealed during inspections carried out by the financial organs during the 1st quarter of 1980 in individual rayons, oblasts and republics. For example, at the Mlotcha Sovkhoz in Borisovskiy Rayon in Minskaya Oblast, the 1979 plan for selling livestock to the state was established in the amount of 41 percent of the level for 1978. The sovkhoz over-fulfilled the plan by a factor of 3.2 and received a bonus added on to the prices amounting to 107,600 rubles. The plan for the Kolkhoz imeni Lenin in this same rayon was set at 144 percent. As a result, this kolkhoz fulfilled its plan by only 63 percent and was thus deprived of the possibility of obtaining a bonus added on to the prices.

It happened that farms which lowered their level of livestock sales compared to the previous year over-fulfilled their plans to a considerable degree and received a bonus added to the prices for their above-plan sales. For example, the 1979 plan at the Vysokovskiy Sovkhoz in Vologodskaya Oblast was 32 percent lower than the 1978 plan and thus the farm over-fulfilled it by a factor of 1.9 and received 43,400 additional rubles.

During inspections, attention should be focused on the correctness of the above-plan tasks established for the farms. Quite often, such tasks for livestock and milk procurements are established at amounts up to 50 or more percent of a firm plan, that is, the plans already embody the possibility of their being over-fulfilled to a considerable degree. Thus, for 1979 the Kalininskiy Sovkhoz in the Yevreyskaya AO was given a plan for selling livestock to the state amounting to 170 tons or 68 percent of the 1978 level and its above-plan task -- 100 tons, or 59 percent of the firm plan. The actual amount sold was 290 tons, or 1.7 times more than the plan. Thus the farm received a bonus added on to the prices amounting to 124,500 rubles. At the Zanadskiy and Sudzhinskiy essential oil plants in Abashskiy Rayon in the Georgian SSR, the task for selling livestock over and above the 1980 plan exceeded the firm plan by a factor of 1.5 and at the Noriyskiy and Tkvirskiy kolkhozes in this same rayon -- by a factor of 1.3.

In accordance with the existing system, bonuses for the sale of livestock and poultry to the state over and above the annual plan are paid out to the farms (with the exception of those specializing in animal husbandry operations) upon the condition that an increase has taken place in the number of each type of productive

livestock available at the beginning of the year (large-horned cattle, hogs, sheep and goats). However, individual kolkhozes and sovkhoses, in violation of this system, are illegally receiving 50 percent bonuses added on to the procurement prices for above-plan sales, in instances where the number of livestock decreased by the end of the year. Some farms, when determining their livestock numbers, do not take into account those animals undergoing fattening and maturing regimes. It turns out that kolkhozes and sovkhoses which transfer (sell) heifers to farms specializing in the raising of non-calving young cows, with payment of a 50 percent bonus for over-fulfillment of the sales plan, do not take into account, when determining the number of productive livestock on the farm during the year, the number of heifers and non-calving young cows being raised at the spetskhoz [specialized farm]. This leads to unjustified payments of state funds.

In conformity with the existing system, 35 and 50 percent bonuses added on to the procurement prices for large-horned young cattle stock of increased weight are established only for kolkhozes and sovkhoses. At the same time, some farms are procuring young large-horned cattle stock of increased weight from the population and supplying them under their own name as transit goods, thus illegally obtaining bonuses added on to the prices. Inspections have disclosed illegal payments of procurement price bonuses for livestock purchased from the population by kolkhozes and sovkhoses and sold to the state without fattening or maturing. Thus, 164 kolkhozes and sovkhoses in the Ukrainian SSR received illegal price bonuses from the budget amounting to 621,800 rubles; kolkhozes and sovkhoses in the Moldavian SSR -- 80,300 rubles and in the Uzbek SSR -- 44,300 rubles. At times, the bonuses established for the procurement prices for young horned cattle stock of increased weight are paid out for adult livestock. Therefore, during an inspection the financial organs are obligated to determine the number of livestock procured from the population by the kolkhozes and sovkhoses and sold to the state without fattening or maturing, the degree to which this affected over-fulfillment of the plan for selling livestock to the state and they must also exercise control over the correctness and validity of procurement price bonus payments for young large-horned cattle stock of increased weight.

In accordance with the existing system, when determining the above-plan payments the livestock and milk expended for public catering purposes are taken into account only within the bounds of the limit. However, quite often when determining the above-plan procurements of livestock and milk the farms include the entire quantity of these products and this leads to an inflating of the above-plan volumes and to illegal payments of budgetary funds.

At the present time, approximately 90 percent of the overall number of meat industry enterprises settle their accounts with the suppliers of livestock based upon the weight and quality of the meat obtained from their slaughtering. At times, the enterprises disrupt the livestock processing schedules and, as a result, a certain weight loss occurs. In such instances, the accounts with the suppliers are carried out based upon the weight indicated in the herd records. Individual meat combines determine the difference between the procurement and accounting prices also based upon the live weight and this leads to excessive payments of state funds. In such cases, control over the difference in prices for livestock should be exercised based upon the quantity and quality of the meat obtained from the processing of the livestock. Then the losses in livestock weight, caused by an

enterprise, will not be covered at the expense of the budget. It was for this reason that, in 1979, the Grodno and Volkovysk meat combines received 16,800 additional rubles of state funds and the Belgorod-Dnestrovskiy Meat Combine in Odesskaya Oblast -- 20,400 rubles.

The financial organs must carry out checks to ensure the correct use of the procurement prices for livestock and milk and the established additional payments and price bonuses and deductions and also on the composition of the regulation documents. In order to assist the financial organs in carrying out a skilful check upon the accounts for controlling the differences in prices for livestock, poultry, rabbits, milk and dairy products, composing the receiving-delivery documents, employing procurement and accounting prices, price deductions and bonuses, bonus payments added on to the procurement prices for the sale of products over and above the annual plan and also in formulating the documents presented by the enterprises to the institutes of USSR Gosbank, for obtaining the price differences in state budgetary funds, the USSR Minfin [Ministry of Finances] issued Methodological Instructions No. 36 dated 16 April 1975 on the method for checking the accounts for controlling the differences in prices for livestock, poultry, rabbits and meat and Methodological Instructions No. 219 dated 28 October 1971 on the method for checking the accounts for controlling the differences in prices for milk and dairy products. These instructions called for measures aimed at raising the material interest of the kolkhozes and sovkhoses, with regard to increasing the production of livestock husbandry products and they also contained instructional advice by USSR Minfin and other ministries and departments on this particular problem. A number of decisions have been handed down in recent years aimed at stimulating growth in the production of livestock husbandry products and circular letters have been issued based upon these decisions.

In increasing the production of agricultural products, special importance is attached to the development of subsidiary rural farms of industrial, transport and other enterprises, organizations and institutes. In January 1979, the decision was made to release the meat of large-horned cattle, hogs, sheep, goats, rabbits, horses and poultry and also milk, from the subsidiary rural farms (including hog fattening points), org's [departments of workers' supply], urs's [administrations of workers' supply] and farms directly subordinate to industrial and transport enterprises and construction-installation organizations, for public catering purposes in the dining halls of the particular enterprises and organizations, in accordance with the existing procurement prices. In the process, the difference between the procurement and retail prices, less the trade deductions, is compensated for using the profit of the enterprises and organizations. The compensation amounts are stipulated in the financial plans of the ministries and departments, organizations, associations and enterprises having subsidiary rural farms (hog fattening points) and they are covered by means of profit distribution.

The profit of the mentioned farms increases to the extent of the indicated difference in prices. The public catering enterprises are reimbursed for the total amount of the price difference by the industrial and transport enterprises and the construction-installation organizations on a monthly basis (no later than the 25th of the month), based upon the bills presented to them by the subsidiary rural farms (hog fattening points) for the products supplied.

In this regard, the financial organs are obligated to: participate in the development of proposals aimed at further developing the subsidiary rural farms and increasing their production, which in turn will promote improvements in the supply conditions for manual and office workers attached to industrial enterprises, construction projects, institutes and organizations; search for intra-farm reserves for realizing reductions in production costs and raising the profitability of subsidiary rural farms of ministries and departments; exercise control over the observance by enterprises and organizations of the system for providing compensation for the price differences for agricultural products and also over the correct use of the procurement and retail prices.

A decision was also handed down calling upon the procurement organizations and enterprises to accept milk, eggs, livestock and poultry from the subsidiary rural farms, which were not used at their place of production and, as a result, a corresponding quantity of such products would be released in other regions, based upon orders issued by ministries and departments, in the system of which these farms are included. The acceptance is carried out based upon the accounting prices established for enterprises of the meat and dairy industry. The difference between the procurement and accounting prices is reimbursed to the subsidiary farms, using the profit of those enterprises and organizations served by them. The milk, eggs, livestock and poultry supplied by the subsidiary rural farms to the procurement organizations and enterprises are not included in fulfillment of the plan for procuring these products by rayon, oblast, kray or autonomous or union republic.

Changes have been introduced into the system for maintaining accounts with kolkhoses, sovkholes and other farms, for milk and cream sold directly into the trade network to public catering enterprises and to childrens', medical and other institutes. In this regard, Instruction No 54/78/9-2-79/10-16/1604/5-176/182 was issued on 11 May 1979 by USSR Minfin, USSR Minsel'khos (Ministry of Agriculture), USSR Minzag (Ministry of Procurements), USSR State Price Committee, USSR CSA and USSR Gosbank. This instruction established the system to be employed for reimbursing these farms for expenditures associated with the pasteurization of milk and cream, expenses for delivering these products to the consumers and in appropriate cases -- also for the differences between the procurement prices for the milk and cream and the retail prices, less the trade deduction and the 50 percent bonus added on to the procurement prices for the sale of these products over and above the annual plan.

The list of farms authorized to sell milk and cream in the form of state procurements, directly into the trade network to public catering enterprises and to childrens', medical and other institutes, is approved in the manner specified by the council of ministers for the union republic. The latter pay for the milk and cream sold to them according to the retail prices less the trade deduction. The value of this product is determined based upon the quantity (volume) of milk sold and its particular fat content according to State Standard 13277-67 (or based upon State Standard No 20141-G, dated 4 March 1975) and the cream and its particular fat content according to Branch Standard 4964-74.

The value of milk sold according to procurement prices is determined based upon its weight and fat content, computed taking into account the basic fat content and the procurement prices for milk by grades. In accordance with State Standard 13264-70, when 1st grade milk in non-pasteurized form and refrigerated to no higher than 10°C

is supplied to dairy plants and procurement points and also to childrens' and other institutes, a bonus amounting to 3 rubles per ton of milk having the basic fat content is added on to the procurement prices. In conformity with State Standard 13277-87, the mentioned procurement price bonus is not paid out for pasteurized milk delivered by kolхозs, sovkhozes and other farms to the trade network, for public catering enterprises and childrens', medical and other institutes.

The task of determining the quantities of milk by grades on a farm is cream up to the form of a document. In those instances where, in accordance with the established system, the milk is supplied as part of the state procurement plan to childrens' and medical institutes, in natural form and without normalization of the fat content, the fulfillment of the milk plan and also its value in accordance with the procurement plans, are determined based upon the actual fat content, computed according to the basic fat content. The value of the cream sold is computed taking into account the procurement prices, according to the weight of cream of a corresponding fat content, computed for cream having a 10 percent fat content and its procurement price.

The expenses for pasteurization are established based upon the actual expenditures of a farm, but they should be no higher than those planned at a nearby state dairy enterprise. The expenses for pasteurization and also for delivering the milk and cream to the consumer and, in appropriate instances, the difference between the cost of these products according to the procurement prices and the cost according to the procurement prices, less the trade deduction for the kolхозs, sovkhozes and other farms authorized to sell, in keeping with the state procurement plan, milk and cream directly to the trade network for public catering enterprises and for childrens', medical and other institutes, are reimbursed by the rayon (municipal) financial departments using appropriations furnished in the budget for the rayon or city. These appropriations are allocated by the union republics from the funds set aside for providing reimbursement for the differences in prices for milk and dairy products. The sale of milk and cream to the accounts of orders is over and above the amount indicated to them is not included in the fulfillment of a farm plan and the expenses and price differences are not reimbursable.

For milk and dairy products sold to the state over and above the annual plan, including milk and cream collected direct to the trade network for public catering enterprises and childrens', medical and other institutes, a farm is paid a 10 percent bonus added on to the procurement prices. This is carried out at the amount that the annual plan for selling milk and dairy products to the state is fulfilled. The basis for such a payment is the regulation document on fulfillment of the annual plan for the sale of milk and dairy products, composed at the amount of plan fulfillment by the farm and the procurement specialist (contractor). The bonus amount is indicated in the payment authorization.

In actual practice, it often happens that pasteurized, sour cream and other dairy products are supplied directly to the trade network for public catering enterprises, childrens', medical and other institutes. No reimbursement is authorized for a difference in the prices for these products. But in it necessary to add a 10 percent bonus to the procurement prices for the above-plan sale of milk and cream and other mentioned expenses, in those instances where the procurement prices for the given product were lower than the retail price level, less the trade deduction.

The financial organs must intensify their control over the correctness of payments for the differences in prices for livestock and milk and the accounts for these products. The accounts must be checked taking into account the decisions and instructions handed down on this particular problem. When violations are exposed in the system of accounts for livestock and milk, the financial organs are obligated to undertake immediate measures aimed at correcting them.

Approved: "Finansy 1958", 1960

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1958, 1959

LEGAL ASPECTS OF INHERITANCE ELUCIDATED

Moscow SEL'SKAYA ZHIN' in Russian 4 Dec 79 p 4

[Article: "The Inheritance of Property"]

[Text] Each citizen has the right to dispose of his property as he sees fit and he is not limited to the circle of legal heirs when writing his will. The will can be drawn for all of his property or for a part thereof (including for household articles) and it can be willed to one or several individuals who may or may not be legal heirs, or to the state or separate state, cooperative or public organizations.

The legator can eliminate one, several or all legal heirs from his will, with the exceptions stipulated in article 119 of the Fundamental Citizen's Law of the USSR and of union republics. This law provides special protection for minors and children (including adopted children) of the legator who are unable to work, for spouses who are unable to work, for parents (adoptive parents) and dependants. These individuals receive an inheritance regardless of the content of the will at a rate of two-thirds of the share that each would receive through legal inheritance (obligatory share).

A will is a distribution of property by an individual in the case of his death to his heirs written in a prescribed manner and confirmed by individuals with the legal right to do so. The will is witnessed only in the case of the death of the legator although it is composed long before and does not become effective until the day of the death.

The will is indissolubly tied to the person of the legator. It cannot be concluded through a representative or by proxy. The legator always has the right to revoke his will and he bears no responsibility if this act is unsatisfactory to someone.

Concluding a joint will with someone is not permissible whether it is for the inheritance of a third party or for mutual inheritance.

The law makes the form of the will important and questions its authenticity according to its form. The will must be written, noting the place and date of composition, written in one's own hand and signed by the legator or if the legator is illiterate or cannot write due to disability or disease, by a special individual. The will must be certified only by responsible parties as indicated in the law--the State Code of the union republic, the USSR Law on State Notaries, Instructions on the System of

Notarization by Local Soviets of People's Deputies and also consular instructions.

The right of inheritance according to a property will which requires notarial formulation is certified by the notary office in the place of permanent residence of the legator. Heirs must appear here in the course of 6 months following the death of the legator.

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CSO: 1824

INHERITANCE OF KOLKHOZ HOMESTEAD CLARIFIED

Moscow BEL'SKAYA ZHIZN' in Russian 21 Oct 80 p 4

[Article by E. Lydinova, candidate of legal sciences, meritorious legal expert of the RSFSR: "Inheritance in the Kolkhoz Homestead"]

[Article] L. Shvedov of Kalininskaya Oblast asks, "In what case is it possible to inherit the property of the kolkhoz homestead?"

The kolkhoz homestead may include a private plot with a house, livestock, poultry and small agricultural tools in accordance with the kolkhoz regulations. In addition the kolkhoz homestead includes labor income from participating in the public production of the kolkhoz and other articles that were contributed to the homestead, as well as household articles acquired from general funds (Article 126 of the RSFSR Citizen's Code).

The property of the kolkhoz homestead belongs to its members as joint property.

The existing law has determined that if a member of the kolkhoz homestead dies inheritance laws do not apply to the property. Only if the last member of the homestead dies (i.e. when no more members remain) does the law on inheritance apply (Article 560 of the RSFSR Citizen's Code).

In applying this law a clear distinction must be made between private property and the property of the kolkhoz homestead.

The private property of the members of the kolkhoz homestead include: personal income from labor and savings as well as property that was acquired through personal funds or by inheritance or gifts and not transferred as homestead property. Private property cannot include property that can belong only to the kolkhoz homestead according to the kolkhoz regulations. For example, private property includes deposits into the state labor savings account, clothing, shoes and other articles needed to satisfy cultural needs. At the same time private property does not include the house, livestock and other structures belonging to the homestead.

Individuals who are not related through blood or marriage can live and work jointly in the kolkhoz homestead. For this reason in the case of the death of a member of the homestead who is not the last member the property remains with the individuals who remained in the homestead. Examples of these are citizens to whom the deceased

was not legally married, nephews who lived and worked in the homestead, and others.

If the last member of the homestead dies, all of the homestead property becomes subject to inheritance laws.

In notarial practice the following question arose: Can a member of the kolkhoz homestead leave a will for the homestead property? Because the availability of inheritance is determined not on the day the will is written but on the day of death, there is no prohibition in the law regarding notarizing such wills. If the kolkhoz homestead is still functioning on the day of the death of an individual who is not the last member of the homestead, the will is validated only for the private property of the homestead member.

A clarification of the nature of the homestead and its property in the case of the death of one member of the homestead is essential for the correct application of the law in order to protect the property rights of the heirs and the remaining homestead members.

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AGRO-ECONOMICS AND ORGANIZATION

LEGAL ASPECTS OF INHERITANCE CLARIFIED

Moscow SEL'SKAYA ZHIZN' in Russian 4 Nov 80 p 4

[Article: "The Obligatory Share in Inheritance"]

[Text] I. Malyshkina of Ryazanskaya Oblast asks, "Citizen Gerasimov willed all of his property to one family member. Do any other family members who are not capable of working have any right to inherit his property?"

Every citizen can bequeath all of his property or a part of it to one or several individuals who may or may not be his legal heirs, to the state or to individual organizations.

However, the freedom of wills has some limits, which exist in order to protect the rights of heirs who have a legal right to receive an obligatory share of the inheritance regardless of the content of the will.

Among the heirs who have a right to an obligatory share are: children (including adopted children) of the deceased who are minors or who are incapable of working, a spouse who is incapable of working, the parents (adoptive parents) and dependants of the deceased. The circle of heirs who have a right to an obligatory share is not subject to wide interpretation. For example, the grandchildren and great-grandchildren of the deceased do not have a right to the obligatory share.

An individual who is not capable of working becomes an heir on the day the inheritance is revealed, i.e. on the day of the death of the legator. Individuals who have reached retirement age (60 years for men and 55 years for women), invalids of groups 1, 2 and 3 as well as minors up to the age of 16 or of 18 if in school are considered incapable of work. Dependants must prove that aid to them was systematic and the main source of income.

The obligatory share equals two-thirds of the portion which would have been given the heir according to legal inheritance. The obligatory share is a part of the total inheritance, including the cost of furniture and household articles.

Usually in legal inheritance furnishings and household articles are inherited by the heirs who lived together with the legator for no less than 1 year prior to his death, regardless of their rank and inheritance share. Thus, if there are primary inheritors living away from the legator and secondary inheritors living with him for

more than one year prior to his death, the latter will inherit the furniture and household articles. The primary heirs (living alone) then receive the rest of the property of the legator.

The aforementioned law regarding the organization of inheritance of furniture and household articles is not in effect if the legator distributes the property in his will. In this case when the size of the obligatory share is determined the cost of the inherited property consisting of furniture and household articles is taken into consideration.

When calculating the size of the obligatory share all primary heirs who were alive on the day of the death of the legator are considered. This includes grandchildren if their parents are not alive to claim their inheritance. Grandchildren otherwise do not have a right to an obligatory share.

If the deceased has willed part of the inheritance, the obligatory share must be allocated only if it is not satisfied from the property that was not covered by the will.

A violation by the deceased of the laws regarding inheritance for minors or for individuals who are incapable of working in the will does not render the entire will invalid. The only portions that are invalid are those which violate the laws on the size of the obligatory share. For this reason the will itself is valid and the obligatory share is issued despite the desires of the legator.

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AGRO-ECONOMICS AND ORGANIZATION

LEGAL RIGHTS TO PRIVATE PLOTS CLARIFIED

Moscow SEL'SKAYA ZHIZN' in Russian 4 Nov 80 p 4

[Article: "The Law Regarding the Private Plot"]

[Text] Our readers ask, "Do retired kolkhoz farmers living in the city have any right to use their kolkhoz private plots?"

The answer to this question is given in the Model Regulations of the kolkhoz and in land laws. According to point 42 of the kolkhoz's Model Regulations the use of the private plot in the size allocated by the kolkhoz is allowed to families of kolkhoz farmers (kolkhoz homesteads) if all of the family members of the family (kolkhoz homesteads) can no longer work because of age or disability, if the only member of the family (kolkhoz homestead) who is capable of working is called to immediate active military duty, is selected for special duties, returns to school or moves to another job temporarily with the approval of the kolkhoz, or if the family (kolkhoz homestead) is composed of underage individuals. In all other cases a decision about the private plot is made by a general meeting of all kolkhoz farmers.

We should add that in the aforementioned cases we are speaking only of kolkhoz members. Kolkhoz membership is retained by kolkhoz farmers who are no longer working because of old age or disability if they continue to live on the territory of the kolkhoz (point 6 of the kolkhoz's Model Regulations).

The land laws provide the basis for curtailing the rights of land use by citizens. One such case is a permanent move to another place of residence by the entire family or household.

Consequently, if a retired kolkhoz farmer lives in a city permanently, i.e. has fully cut ties with the kolkhoz, he cannot remain a member of the kolkhoz and thus loses his right to use the private plot.

In recent years many kolkhozes have begun extensive building of large settlements and in connection with this the Model Regulations of the kolkhoz stipulate that kolkhoz farmers will be allocated plots in two places--smaller ones near the place of residence (apartment) and the rest, the larger portion, outside the limits of the residential zone.

AGRO-ECONOMICS AND ORGANIZATION

LEGAL ORGANIZATION OF PRIVATE PLOT SYSTEM

Moscow SEL'SKOYE KHOZYAYSTVO ROSSII in Russian No 7, Jul 80 p 30

[Article by Yu. Shuplyakov, director of the legal administration of the RSFSR Ministry of Agriculture: "The Private Plot is for Personal Use"]

[Text] Reader A. F. Rudeyev of the village of Chemodurovo, Voskresenskiy Rayon, Moscow Oblast, asks about the organization of land use for workers, employees and other citizens living in rural areas.

The question is answered by the director of the legal administration of the RSFSR Ministry of Agriculture, Yu. Shuplyakov.

In accordance with the RSFSR Land Code, sovkhozes and other state agricultural enterprises, organizations and institutions provide private plots or gardens, which have been allocated for this purpose, for permanent workers and employees as well as for teachers, doctors and other specialists working and living in rural areas on the basis of an administrative decision of the sovkhoz, enterprise, organization or institution.

Upon the decision of the general session of members from the enterprise or of authorized members, kolkhozes allocate private plots for teachers, doctors and other specialists working and living in the rural area.

Workers, employees, retired individuals and invalids living in rural areas can obtain private plots if they are available in kolkhozes, sovkhozes, other state agricultural enterprises, organizations and institutions according to a decision of a general kolkhoz-members meeting or of a meeting of authorized parties, or of the administration of a sovkhoz, enterprise, organization or institution. The decision is confirmed by the executive committee of the village soviet of people's deputies.

Article 66 of the RSFSR Land Code foresees the external limits on the size of private plots that are allocated per family:

1) for permanent workers, specialists and employees of sovkhozes and other state agricultural enterprises who work and live in the rural area--up to 0.3 hectares;

2) for permanent workers and employees, teachers, doctors and other specialists working and living in rural areas, in accordance with a list confirmed by the RSFSR Council of Ministers--up to 0.25 hectares;

3) for permanent workers, employees living in rural areas to whom points 1 and 2 are not applicable as well as for workers, employees, retired individuals and invalids living in rural areas--up to 0.15 hectares.

The size of the private plot allocated for permanent workers and employees can be increased by 0.5 hectares in consideration of local conditions according to a resolution of the RSFSR Council of Ministers, the council of ministers of an autonomous republic or a decision of the executive committee or kray or oblast soviet of workers' deputies.

On irrigated lands the norms for private plots are decreased by half.

Workers, employees and other citizens living in rural areas can be allocated small plots of land that become available as a result of the reorganization of land use and that cannot be used for the production needs of the kolkhozes, sovkhoses or other enterprises and organizations according to the RSFSR Council of Minister's order.

When compact villages are built the sizes of the private plots that are located near the houses (apartments) may be smaller than the aforementioned parameters, with additional plots being allocated outside the settlement area to bring the total allocation up to the required norm.

Private plots at their allocated size are retained by workers, employees and specialists working and living in a rural area as well as by workers, employees, retired individuals and invalids living in rural areas who become pensioners as a result of old age or disablement and also by the families of workers and employees who are called for immediate active duty in the Armed Forces of the USSR or who matriculate for study. In the latter case the plots are retained for the entire period that the individual is on active duty or in the educational institution.

Permanent workers and employees as well as teachers, doctors and other specialists who live and work in a rural area and who do not have private plots can be allocated gardens up to 0.15 hectares in size per family according to a decision of the general meeting of kolkhoz members or of authorized members or of the administration of the sovkhos, enterprise, organization or institution.

On irrigated lands these norms are decreased by half.

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CSO: 1824

BRIEFS

KOLKHOZ PRIVATE PLOTS--Comrade Nosova of Gor'kovskaya Oblast asks, "What are the regulations concerning private plots in kolkhozes?" In accordance with the Model Regulations of Kolkhozes the family of a kolkhoz farmer (kolkhoz homestead) may be allocated up to 0.50 hectares for orchards, gardens and other needs, including land occupied by structures, and on irrigated land--up to 0.20 hectares. Within the limits of the aforementioned norms for private plots each kolkhoz can determine the size of its private plots according to the specific conditions in its own regulations. A private plot is allocated to a kolkhoz farmer's family (kolkhoz homestead) upon a decision by a general meeting of kolkhoz farmers or of authorized parties; its size is determined according to the number of family members and their labor participation in the public production of the kolkhoz. It should also be remembered that the Kolkhoz Model Regulations permit the retention of private plots in larger than the aforementioned sizes if the allocation was made according to a previously effective regulation of an agricultural artel. In particular, in a number of kolkhozes of the Baltic States and in some oblasts of the Ukraine and Belorussia private plots were previously up to 0.60 hectares in size and some have been maintained at such a size up until the present. Practical experience shows that the allocation of private plots outside the residential zone enables planners to beautify settlements better and to significantly ease the labor of kolkhoz farmers as concerns cultivating potatoes and other crops on this land. In such cases the kolkhoz takes the responsibility of plowing the given fields, of providing mechanized cultivation of crops and mechanized harvesting. For these services the kolkhoz receives a corresponding payment from the kolkhoz farmer. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 26 Aug 80 p 4] 8228

KOLKHOZ MEMBERSHIP--In accordance with the Kolkhoz Model Regulations, which were passed by the Third All-Union Kolkhoz Congress and confirmed by a resolution of the CPSU Central Committee and the USSR Council of Ministers on 28 November 1969, Resolution Number 910, kolkhoz membership is voted by a general meeting upon presentation by the administration. The administration may examine the application for membership for 1 month. Thus, a candidate for membership previously became a full-fledged member of the kolkhoz only after the administration confirmed the decision to admit that was made by the general meeting. The existing procedure was altered by the All-Union Conference of Representatives of Kolkhoz Soviets from Union Republics. The change in the Model Regulations was confirmed by Resolution Number 597 of the CPSU Central Committee and the USSR Council of Ministers dated 10 July 1980. Now, a person who files an application has all the rights of a kolkhoz member prior to the decision of the general meeting from the moment of the

administrative decision on the recommendation for membership that it will make to the meeting. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 19 Aug 80 p 4] 8228

TOOL SHORTAGE--Karay, Pushchino, Tambovskaya Oblast--For several years now I have not been able to buy a simple scythe in the shops of our Inzhavinskiy Rayon. I went to Tambov several times, but even there scythes are available from time to time and are immediately bought up by village residents. It is also a big problem to find an axe. It is true that about 2 years ago about 20 axes appeared in the enterprise's store, but they were not axes but small versions thereof. Where can one buy a heavy, real axe to sharpen a stake or to cut firewood? It should be understood that the village needs not only the latest technology, but our grandfather's axes and scythes as well. We cannot do without them. [Signed] V. Rakshin. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 10 Aug 80 p 3] 8228

TRADITIONAL TOOLS REQUIRED--Kolkhoz imeni Suvorov, Labinskiy Rayon, Krasnodarskiy Kray--Our kolkhoz, like many other enterprises of Labinskiy and Mostovskiy rayons, is located in the foothills zone. The haylands are located on steep slopes, in gullies, ravines and other inconvenient places. It is impossible to procure feed from such plots using mechanized means. But where can we acquire manual scythes, horse-drawn haycutters and horse-drawn rakes? Our workers have traveled all over Krasnodarskiy and Stavropol'skiy krays and could not acquire any anywhere. Trade organizations do not even have small inventory in stock--files for sharpening mowing knives, shovels for digging and picking up and hoes. [Signed] K. Reznik, kolkhoz farmer. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 1 Aug 80 p 3] 8228

CHICK SHORTAGE--Volodarsk-Volynskiy settlement, Zhitomirskaya Oblast--Many residents of our settlement have private plots where they raise livestock and have orchards. We deliver our surplus to procurers. The conditions for the development of a private enterprise are adequate. The only problem is the poor organization of supplies of incubation chicks. A few years ago there was an incubator in the rayon center. That is where we acquired our ducklings and chicks. Then the rayons were expanded and the station was eliminated. When the rayon was reinstated, the station was forgotten. But we who have private plots have not forgotten. We sometimes complain to the settlement soviet or to the rayon executive committee and we are told, "It is not a big problem. You can go to Krasnoarmeysk, a trip of only 40 kilometers." I took this advice once. In order to deliver my eggs for incubation and then to obtain the ducklings I wasted 3 days. While I travelled on the bus here and there I broke one-third of my eggs. This is to my disadvantage and it took a long time. There is no time to travel because I work, after all. We have been told that there is no need to travel ourselves, a car will come to us from Krasnoarmeysk. It comes sometimes, but without a schedule and we do not know the day or the hour when it will arrive. I feel that we should listen to the opinion of the settlement's residents and open an incubation station. But while we do not have one there should be a precise schedule drawn up for the car trips from Krasnoarmeysk [Signed] A. Volkov, worker of the rayon consumers' society. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 19 Aug 80 p 3] 8228

ALIMONY PAYMENTS--Alimony is deducted from workers and employees from all types of wages and supplementary compensation, including primary and combined work from which insurance fees are deducted according to existing regulations. Deductions are made after taxes are withheld. Alimony is not deducted: from gratuity on discharge and from sums for material aid; from one-time bonuses for which insurance

fees do not have to be paid; from bonuses awarded for excellent work in the area of science, literature and art; from a one-time reward for inventions and efficiency proposals; from compensation during special assignments and during transfer to another area; from field allowances, additions to wages and other sums that are paid out in lieu of daily and living allowances; from remuneration as a result of the amortization of an instrument or the wear of clothing; from the cost of freely acquired quarters and communal services; from sums paid out for supplementary nutrition, for sanitation-spa medical treatment, for equipping a survivor with a prosthetic appliance and for expenses to care for him in the case of compensation for damages that are awarded for mutilation or for other health reasons [instructions on the Order for Carrying Out Judicial Decisions confirmed by an order of the USSR Judicial Minister on 24 April 1973, with changes and additions dated 1 August 1978]. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 19 Aug 80 p 4] 8228

TRAVELLING EXPENSES--V. Rovnyagin of Kostyukovichskiy Rayon asks, "Who receives travelling expenses, in what cases and in what quantity? Are travelling expenses paid to the graduates of professional-technical schools?" So-called travelling expenses are compensation for the worker's expenses during his transfer to work in a different locality. Travelling expenses are paid in all cases when an individual is transferred to work in a different locality (except in transfers that were requested by the individual himself) as well as when he moves to work in a different place. Compensation is received for: the cost of the passage for the worker and the members of his family; the cost to ship his belongings; a daily allowance while the worker is en route; wages for the time that the worker is en route as well as for an additional 6 days (to prepare for the trip and to settle in the new place); a one-time allowance for the worker and for each member of his family who is moving. Workers who are transferring to work in another place at their own request may be compensated fully or partially according to the agreement of the parties involved. If rail travel is chosen, compensation is made for the hard carriage with a reserved seat; travel by ship--second class cabin; highways and roads--for existing rates in the given locality. Compensation for furniture includes up to 240 kilograms for the worker himself and up to 80 kilograms for each member of the family who is moving. The daily allowance is 1 ruble per day of the trip. The one-time allowance for the worker equals his monthly salary (tariff rate) in the new place of work and for each member of his family who is moving--one-fourth of the worker's allowance. For moves of a distance of no more than 25 kilometers from the old residence only the actual expenses of the worker and the members of his family and the shipment of furniture are reimbursed. The graduates of professional-technical institutes are not given travel allowances. [Text] [Minsk SEL'SKAYA GAZETA in Russian 5 Nov 80 p 4] 8228

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AGRO-CHEMICAL SERVICE ACHIEVEMENTS IN BELARUS

Review VIL'KINS' CHEFVON' in Russian in Nov 80 p 7

[Article by N. Babitsky, Chairman of the Bel'sel'skikh Khoz'khaizatsiya Association and Deputy Minister of the USSR Ministry of Agriculture: "An Arsenal for Increasing Fertile Soil"]

[Text] In recent years the Bel-Chernozem zone has experienced extremely irregular weather. Unforgettable droughts, the unprecedented recent early and cold summer when photosynthesis in the plants occurred poorly and even stopped completely, did not bypass Belorussia. Nevertheless, in the republic an average of over 18 quintals of grain per acre and 170 quintals of potatoes were harvested, and they got a harvest of corn and sunflower fodder. In comparison with the previous five year period, the average annual gross harvest of grain increased by 13 percent, the production of meat increased by 23 percent, and milk increased by 22 percent.

The practical experience of progressive farms, where even during the most difficult years they showed 45 and even more quintals of grain per hectare, attests to the fact that the best guarantee for such a harvest is a good agricultural crop and primarily the introduction of increased doses of organic fertilizers. Each ton of fertilizer per hectare of plowed area provides for an increase in the harvest of one quintal. A great deal of experience has been gained with organic fertilizers in Belorussia on the whole. Over the last 10 years the scope of their use here has almost doubled and has reached 77 million tons, or 12 tons per hectare. As a result the content of the humus in the plowed layer increased from 1.5-1.7 to 1.8-1.9 percent.

Peat, of which annually 20-25 million tons is produced, is one of the important components in organic fertilizers in the republic. Dry peat dust is widely used for feeding for cattle and is mixed with manure. The functions of the branches participating in this important work are clearly defined: the construction of turf areas is conducted by local reclamation organizations, procurement is done by the Sel'skikh Khoz'khaizatsiya Association and in part by enterprises of the USSR Ministry of the Fuel Industry, while control over quality is carried out by Gostsnabprod. Considering that reserves of peat are limited and its procurement for fertilizers will be gradually reduced, in Belorussia they are now searching for other sources to increase the organic substance. Particularly, they are refining the technology of extracting lime-extracts, the deposits of which comprise approximately 5 billion cubic meters. At two-lime deposits they have already begun the industrial extraction of it.

Of course, local fertilizers which allowed a noticeable increase in the land's content of peat is not the only factor, although it is very important, for the increase in the productivity of the soil. In just the last 4 years in agriculture over half a million hectares of reclaimed lands have been put into operation, large amounts of crop and technical work on the land was carried out without requiring drying. Take the delivery of mineral fertilizers to the countryside; they tripled over the three last years of the five-year period. The kolkhozes and sovkhozes put 217 billion grams of operating materials to work per hectare of plowed area. The third round of liming acidic lands is coming to an end; moreover, they are introducing dolomite—very valuable liming material which contains a most important nutritional element—magnesium.

The rural workers of Belorussia reacted with great interest to the resolutions of the October (1960) Plenum of the CPSU Central Committee and the Fourth Session of the 10th Supreme Soviet concerning the further appropriation of large capital and material resources to agriculture. At the same time they completely divided up the equipment which was expressed in the speech of Comrade L. I. Brezhnev at the Plenum: sharply increased the demand for efficiency in the utilization of appropriated funds, mineral fertilizers, and machinery. The practical realization of this demand can primarily be seen in the transfer of all farming, in particular the chemicalization process, to a strictly scientific basis.

The republic's Belorussian Scientific Production Association is one in its kind now. It includes the chemicalization services of Belorussiankholmiz, along with the material and technical base, the republic agro-chemical laboratory, district and rayon chemicalization stations, plant protection stations and other subdivisions. Solving the problem of increasing the productivity of the soil and effectiveness of fertilizers is now being conducted by 16 scientific departments. In order to have better coordination of their efforts and to increase the responsibility of scientists for their recommendations, leaders of scientific and research institutes for soil science and agro-chemistry, plant protection, mechanization and electrification of agriculture in the USSR Belorussian zone, and planning institutes of Belorussian and Belorussian-Belarus were placed on the staff of the association council.

The following facts address themselves to the level of development in the republic of the scientific base of chemicalization. Over the recent 13 years, 22 million soil analyses were made, 267,000 analyses of organic, mineral and lime fertilizers were carried out, and approximately 4,000 field experiments with fertilizers were conducted. All of the farms have soil maps and agro-chemical maps at their disposal which are regularly renewed every 3 years. Methods for charting the soil for providing peat, magnesium and microelements have been mastered. For the first time in Belorussia scholars under the leadership of the academicians of VASKhNIL, Krop of Socialist Labor T. G. Kulshresha, developed and implemented everywhere differentiated doses of added fertilizers depending upon the properties of the soil, biological features of crops and varieties of plants, and levels of the planned harvest. Modern methods for composing planning-technological documentation on using fertilizers and liming acidic soil, distributing funds of chemicalization to the districts, rayons, farms and crop rotation fields on the basis of an electronic computer were created and are being implemented. Concrete indicators

of the compensation of appropriated fertilizers for plant products are included in the production-financial plans of kolkhoses and sovkhoses and are taken into consideration in summarizing the results of socialist competition.

The production service has also been significantly strengthened. During the last 15 years its tractor park has increased by a factor of 2.5, 97 railway bases have been created, mechanized railway storage areas with an overall capacity of almost a million tons of mineral and liming materials and deep storage with a capacity of 897,000 tons have been built. During the current five-year period rapid flow—industrial technology in liming soil with powdered materials has been put into operation and this allowed work to be done less expensively and quality to be raised.

With the establishment of a single chemicalization service, the efficiency in the use of tractors has improved, as has that of specialized vehicles and storage capacities. Even the idle time of railroad cars being unloaded has been somewhat reduced as compared to standard levels of idle time. What about the efficiency in applying chemical means themselves? The compensation of each kilogram of working fertilizer which in 1961-1965 comprised slightly over 3 food units, reached 5.9 feeding units already during the current five-year period and the payment for such a dose of fertilizer in grain increased from 3.9 to 5 kilograms in the course of 10 years and in progressive rayons it increased even more.

The results achieved are a hopeful starting base for the further intensification of farming and for improving its stability. In the near future the republic must increase the harvest of grain to 34-35 quintals per hectare, and produce using their own feed 700 quintals of meat and 800 quintals of milk per 100 hectares of agricultural land. The plans are extremely intense and in carrying them out farmers justly are counting upon the increased assistance of Sel'khozkhimiya. At the same time, a great deal remains to be done in eliminating the still great losses in fertilizers and to have a more qualitative introduction of them.

For this it is essential first of all to eliminate the lack of coordination in the material and technical supply. Providing for the necessary rates of constructing storage facilities for holding fertilizers in kolkhoses and sovkhoses and at supply bases in the rayons is forthcoming. In the newly created associations, the housing construction remains a pressing problem. The unimproved technology in utilizing manure, particularly at the large complexes, as well as an inadequate quantity of special machines and mechanisms lead to significant losses in fertilizer, to a reduction in its quality, and sometimes to the pollution of the surrounding environment.

We are placing a great deal of hope upon the new equipment for introducing mineral fertilizers. For today the only scatterer for these goals, IROC-4, is too outdated. In Belorussia the automotive machine MVO-30 was constructed, prepared and tested. According to the conclusion of the Western Machine Testing Station, it is 1.5 times more productive than an airplane and 8-10 times more productive than the average aggregates. The particular features of the wide arched tires with low pressure provides for its good traction in the most difficult field conditions, including early spring. The machine has removable equipment which allows the possibility to use it for bringing in liquid fertilizers and for chemically protecting plants.

For transporting fertilizers and their loading, in the republic they began to produce transfer machines AP-7 at Ural-377 motor vehicle base, which are superior in their quality to others. Experience shows that in a rayon, having 10-15 MVU-30 and 20-30 AP-7 machines, it is possible to introduce a basic quantity of mineral fertilizers only with the efforts of the Sel'khozkhimiya Association. We feel it is advisable that their series production be more quickly implemented.

The subdivisions of Sel'sel'khozkhimiya are successfully concluding the agricultural year. The work groups are operating in full force and they are struggling for a harvest in the first year of the 11th Five-Year Plan, and for the proper greeting of the coming party congress. They are increasing the areas of fertilized lands, they are stacking compost piles on the field, and they are accumulating mineral fertilizers. The increased opportunities for the chemicalization services, undoubtedly, will provide for a new increase in the harvest.

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CNO: 1824

TILLING AND CROPPING TECHNOLOGY

AGRO-CHEMICAL SERVICE PROBLEMS, PROSPECTS DISCUSSED AT MINSK CONFERENCE

Minsk SEL'SKAYA GAZETA in Russian 22 Nov 80 p 2

[Article by V. Khlimanov and N. Khot'ko: "Agro-chemistry Is Marching"]

[Text] One year ago in our nation a new service was established—that of agro-chemistry, which was faced with an important and responsible task: to improve the effectiveness of chemicalization on the kolkhozes and sovkhozes. This is quite proper. No less than half of the increase in the harvest yield is provided for today by fertilizers. Chemicalization is one of the most important items in the intensification of agriculture. Agro-chemical subdivisions, despite their use in the majority of the union republics, krays and oblasts have already done a great deal, are increasing the scope of work, and have presented themselves as reliable partners for farmers.

However, in the subdivisions of Sel'khozkhimiya there are still many problems also and issues which have not been resolved. How should the effectiveness of chemicalization means be improved and what must be done to perfect agro-chemical services for kolkhozes and sovkhozes? These issues were discussed at the All-Union Seminar Conference which was held in Minsk. Workers of the party, soviet, and agricultural bodies of the union and autonomous republics, krays and oblasts, representatives from a number of ministries and branches, leaders of the Soyuzsel'khozkhimiya Association, and scholars participated in it.

At the seminar conference it was noted that the Soyuzsel'khozkhimiya Association which was established in accordance with the resolutions of the July (1978) Plenum of the CPSU Central Committee to be in the system of agricultural bodies, was called upon to take all of the responsibility for the scientifically founded and effective utilization of mineral and organic fertilizers, chemical ameliorators, means for protecting plants, growth substances and other chemicalization means of agriculture in all kolkhozes, sovkhozes and other agricultural enterprises.

The work for Sel'khozkhimiya last year was difficult. A great deal of time and effort was expended for organizational work. Now in the nation 3,007 rayon and

inter-rayon, 154 oblasts, kray associations of Sel'khozkhimiya have been created and are operating. To their staff were transferred agro-chemical laboratories, design-excavation stations, stations for plant protection, several scientific research and design-construction administrations.

In order to realize the production work, the association transferred 100,000 tractors, 100,000 vehicles, over 450,000 units of special equipment, 9.7 million tons of one-time storage capacities and others.

During the first days of their operation, the associations of Sel'khozkhimiya in the Belorussian SSR, Lithuanian SSR and in the Moldavian SSR have been doing a great deal of goal-oriented work in increasing the productivity of the soil. Under difficult working conditions, the collectives of the associations managed to present themselves well as active and capable organizations having great foresight.

Our agro-chemical science has made an important step in its development. Throughout the country the second cycle of agro-chemical survey of the soil has been completed, the scientific bases for plant nutrition have been developed, as have the rational terms and methods for introducing fertilizers in areas of the nation, the scientifically based complex system for plant protection from pests and diseases have also been worked out. All of this allows 2.3 rubles of additional plant products to be gained per ruble expended for mineral fertilizers throughout the nation. In part, due to this agricultural workers provided for an average annual harvest of grain which exceeded 200 million tons during the difficult years of the 10th Five-Year Plan.

However, this achievement does not satisfy the nation today. At the October (1980) Plenum of the CPSU Central Committee it was indicated that the resolution on developing a foodstuff program was approved. The demand to significantly improve the role of chemistry in the work of further developing agriculture and primarily for the increase in the harvest yield of all crops, and giving our farmer a more stable character was expressed.

From the position of these great party demands, the present situation with the utilization of fertilizer, chemical amelioratives and pesticides leaves something to be desired in the formation of a business-like attitude towards fertilizers as well as towards the work of a more skillful utilization of them. Thus far the effectiveness of fertilizers used for sugar beets, vegetable crops and potatoes has remained chronically poor.

In each oblast and republic one can show tens and hundreds of examples of the improper use of fertilizers. But the essence is not in the example, but in the reasons which cause them and the same negative trend is seen which is connected with the work of the Sel'khozkhimiya Association and earlier that of Goskomsel'khoztekhnika. The system of fertilizer supply thus far is established in such a way that many kolkhozes and sovkhozes do not have the opportunity to introduce them at a better time and in the complete complex according to given cartograms. Unfortunately, situations frequently occur when one farm has a surplus of nitrogen, but not an adequate amount of phosphorus or potassium, while on other farms the opposite situation is true. The farms closest to the supply bases frequently receive 1.5-2-fold more fertilizers than those which are far away from them.

In this complicated business the still weak material and technical base of chemicalization, unimproved economic stimuli which sometimes simply encourage unfavorable types of activity among the subdivisions of Sel'khozkhimiya incur expenses. In many places the fertilizers are unloaded along the common-use ways, that is, practically on the ground, down the slope. With such unloading losses in fertilizer per year exceed 2 million tons, and throughout the country during the trip from the factory to the field--about 8 million tons! According to simple calculation--this is the same 8 million tons of grain.

In 1981 agriculture in the nation will be supplied with over 87 million tons of mineral fertilizers. This is not so much, therefore, the task to distribute them properly to crops and master the methods for the proper utilization now takes on primary significance. This is why in all the zones of the nation it is essential to achieve widespread implementation of local methods for introducing fertilizers into the soil. Thus far they are used on limited plowed areas, although they have the greatest effect. During the 11th Five-Year Plan a much larger amount of specialized equipment will be used for introducing fertilizers using the local method. There will still not be an adequate supply of equipment. Therefore, it is necessary to prepare grain sowers and to reequip potato planters and deep cultivators. In all the republics, especially the Belorussian SSR, where over 200 kg of active substance fertilizer are introduced per hectare, it is essential to change over to a balanced method of using these, according to definite norms. In this, the agro-chemical service must be the initiator.

A serious factor holding back the growth in the harvest yield is the presence of large areas of acidic soil. Without bringing the soil reaction to the optimal level, the effect of other methods was and will be low. Although the scope of the work in liming and adding gypsum in the last three five-year plans increased significantly, over these years not once were the indicated plans carried out.

One of the chief problems to be resolved in the foodstuffs issue will be the goal-oriented activity of kolkhozes, sovkhoses and the Sel'khozkhimiya Association concerning providing for an expanded production in soil fertility. The experience of conducting farming on our best farms and rayons situated in the most varied areas of the country and there where the standard for the harvest has become 40-45 quintals of grain per hectare, attests to the fact that such productivity is provided for only upon realizing all the system of agro-chemical measures, but its chief guarantee is the high level of soil productivity which is attained not only by the skillful work of agro-chemical service, but also by the correct utilization of organic fertilizers. Therefore everyone should learn from the farmers of Belorussia, Latvia, Lithuania and Estonia. Here per hectare of plowed area, from 7 to 13.6 tons of organic fertilizers were introduced, while in the nation as a whole few areas used more than 3 tons, which is one-third the amount of the scientifically established norms. The practice of having organic fertilizer taken to the fields in the winter and early spring periods is also bad.

The service of plant protection has entered the Sel'khozkhimiya system in full formation. The work of this service is very important since losses in the harvest due to pests and diseases cannot be compensated by any technological methods, except for the skillful and proper utilization of complex methods and systems for

protecting plants. These operations are carried out more and more widely, but still inadequately. One of the reasons for this is the shortage of pesticides. Therefore, it is essential to more broadly apply biological methods of struggling with pests, as is done, for example, in the Kashkadar'inskaya Oblast. Their successful experience must be duplicated by others.

Among the serious oversights in the service of plant protection is the fact that until now in the sovkhozes and kolkhozes field mapping is not done for pollution, therefore orders for herbicides are made blindly. As a result, the effectiveness of herbicide application is sharply lowered. This is why the services of Sel'khoz-khimiya must give this issue particular attention. They must also use the TUR preparation as widely as possible against grainfall on each farm, as well as methods for sowing hydrophobic corn seeds. This method which is used on many farms in the Non-Chernozem area has given good results.

At the seminar conference they discussed the unresolved problem of the Sel'khoz-khimiya Association and the measures which the CPSU Central Committee and USSR Council of Ministers are using in improving this important rural service. Presently, at the final session, there is a plan for a decree concerning the measures on strengthening the material and technical base and improving the effectiveness of chemicalization in the agricultural industry in 1981-1985. In it will be resolved a broad circle of issues which will provide for the complete protection and complex utilization of fertilizers and other chemical substances, the creation in each republic of a material base for chemicalization, bases for equipment repair and for servicing. Undoubtedly, this will promote an increase in the authority of Sel'khozkhimiya, the labor activity of its workers, their discipline and interest in the work. These measures will also promote the development of economically based systems of interrelationships between agro-chemical subdivisions with kolkhozes and sovkhozes, including measures for increasing the mutual material responsibility for the timely and qualitative implementation of the work and the agreed upon obligations, the scientifically based level of prices and ratings for the work carried out, measures for improving the system of labor wages and for stimulating the workers of all subdivisions depending upon the harvest yield in the serviced zone. The measures noted by the party and the government allow the Sel'khozkhimiya subdivisions to resolve even more difficult issues connected with preserving and improving machine operator personnel, agro-chemists and agronomists in plant protection.

On the example of all republics in the nation, they said at the seminar conference, one can see the charitable results of the party's agrarian policy which was conducted after the March (1965) Plenum of the CPSU Central Committee. They can clearly be seen in the steady development of the material and technical base of agriculture, the technical reequipping of all of its branches, the social reform of the countryside, and the increase in production output. Thus, while the average annual harvest yield of grains on kolkhozes and sovkhozes in the Belorussian Republic during the 8th Five-Year Plan was 13.1 quintals per hectare, during the 9th and 10th Five-Year Plans it was 21.3 quintals, and the harvest yield of potatoes for this period increased from 117 to 154 quintals. The increase in the product output in farming promoted the further increase in the scope of meat, milk and other product output in animal husbandry.

However, although here a certain increase in agricultural production has been achieved, it does not yet satisfy the demands of the population for food products and of industry for raw materials. In this struggle the workers of Sel'khozkhimiya must also have their say.

Now the subdivisions of Sel'khozkhimiya carry out all the work in liming acidic soils and transport of mineral fertilizers, three-fourths of the work in peat output, over half of the industrial crop work, and almost all of the chemical protection and many other measures.

Sel'khozkhimiya of Belorussia works closely with science. Land maps, agro-chemical charts, materials for selection and classification of soils have become reliable compasses for farmers and are widely used in production.

A qualitatively new stage has arrived in the utilization of mineral fertilizers. Now their share is almost half of the gross harvest. To a great extent this is promoted by the scientific approach to distributing fertilizers, the doses of their introduction in each farm and field. The re-endorsement indicator of fertilizers became part of the plan and was most important in evaluating the activity of kolkhozes and sovkhoses. The yield of 1 kilogram of NPK calculated with seed under the best weather conditions, throughout the republic reached an average of 6 kilograms. Many kolkhozes and sovkhoses have had this indicator reach 8-11 kilograms.

In the republic a great deal of attention is devoted to liming acidic soil. Just in the years of the Eighth-Ninth Five-Year Plan, over 15 million hectares were limed and the third round of liming is being completed. The necessary base for producing liming fertilizers has been created.

For Belorussia, where soil which is poor in peat prevails, organic fertilizers have an exclusively important significance. The volume of their annual production and introduction into the soil is growing and in 1979 it reached 73 million tons as opposed to 43 million tons in 1970. Now for each hectare of plowed area an average of about 13 tons of organic fertilizer is introduced.

The consistent, complex and goal-oriented work allowed the productivity of Belorussian lands to increase by one-third. From the standpoint of the soil cultivation process, this is a great quantitative and qualitative achievement.

Important problems on the chemicalization of agriculture in the nation are being solved today by scholars and agrarian experts.

It was noted at the seminar conference that scientific institutions are continuing also to research the development of methods which increase the effect of nitrogen, phosphorus and potassium-magnesium fertilizers which increase the coefficient of utilizing the nutritional elements with consideration for specialized crop rotation and the growing chemicalization in farming. They are also searching for ways to increase the effectiveness of micro-fertilizers, methods which weaken the unfavorable influence of the weather on the growth of plants and on the effect of fertilizers.

The scientists who spoke at the seminar noted that for highly productive soil it is essential also to have a highly productive variety. Science and advanced experience attest to the fact that the intensification of farming, development of chemicalization, melioration, advanced agricultural equipment and farming, upon raising highly productive varieties give objective prerequisites for providing the expansion of soil productivity and for the progressive increase in harvest yield. This is the most important situation for modern agro-chemical science and it must be part of the equipment of each agronomist who works on the farm.

Now we have at our disposal reliable scientific and practical material which allows that in each soil and climate zone a complex system for cultivating the soil be conducted and that optimal conditions for raising high and stable harvests be ensured.

The methods recommended by scientific institutions for a more effective application of organic and mineral fertilizers which are used on various agricultural crops as well as the liming of acidic soil, methods for the proper utilization of fertilizers in meliorated and eroded lands, as a great deal of experience indicated, will allow that the further increase in the harvest yield of cultivated crops be ensured as well as an increase in the soil productivity and improvement in the quality of the farming product.

Scientific institutions showed the possibility of gaining grain yields of 50-70 quintals per hectare and 350-500-600 quintals per hectare of potatoes on the Non-Chernozem land on the basis of using a new intensive type of agricultural crop varieties.

Thus, for example, in the experiments of NIIMKh [not further identified] of the north east, which were conducted on the humus-podzol soil, during the 4 years the average maximum harvest of winter wheat of the Moskovskiy-121 variety with the introduction of 90 kilograms of fertilizers for each element comprised 38 quintals per hectare (with the further increase in the dose of fertilizer, the harvest did not increase), while the Luch variety yielded 44 quintals per hectare with the introduction of 150 kilograms for each element. During the more favorable year of 1977, the harvest of the Luch variety with the influence of fertilizers increased to 68 quintals per hectare. In the experiments of the Perm Experimental Station, the Luch variety of winter wheat with the introduction of a full standard of fertilizer of 150 kilograms, provided for a harvest yield of 58 quintals per hectare.

Under the conditions of the Non-Chernozem area the possibility has been established that with the proper utilization of nitrogen fertilizers, the quality of the winter wheat will be improved to the level of the standards for strong wheat in protein content, and in technological and baking property.

Science has developed a method of late nitrogen feeding in order to improve the quality of grain which at present is used in making strong wheat in Stavropol'skiy, Krasnodarskiy krais as well as being widely implemented in other regions of the nation.

In connection with the increasing intensification of the agricultural industry, the scientific institutions are faced with new problems which require rapid solutions.

Among the basic directions for work of the scientific institutions during the 11th Five-Year Plan, the following were indicated:

—to work out the scientific bases of highly intensive systems of fertilizers in crop rotation under various soil and climate zones under conditions of concentrated and specialized agricultural production and applying new highly productive varieties. Moreover, it is necessary to develop scientific bases for preserving and increasing the productivity of the soil with a systematic application of mineral, organic fertilizers and lime.

On the issues of liming, the main attention must be given to the creation and maintenance of optimal levels of soil reaction for various soil and climatic conditions and crop rotation with consideration for the chemicalization level, including doses, types and forms of fertilizers.

Scientific establishments will continue the research on developing methods which increase the effectiveness of nitrogen, phosphorus and potassium-magnesium fertilizers, the increase in the coefficient of utilizing nutritional elements among them in various soil and climatic zones of the nation with consideration for specialized crop rotation and the increased chemicalization in farming.

Ahead lies the task of developing ways to increase the effectiveness of micro-fertilizers in various zones of the nation.

Scientists will continue the development of agro-economic requirements for new types and forms of mineral fertilizers, which provide for a more productive utilization of nutritional substances by plants and for reducing their losses as well as for an economic efficiency in the optimal systems of fertilization in various areas of the country.

One of the urgent tasks for agro-chemical science is to provide for greater stability in high annual harvest yields. In connection with this it is essential to develop methods which weaken the unfavorable influence of weather upon the growth of plants and the effectiveness of fertilizers.

Comprehensive scientific research will allow, in the shortest time, for study and elimination of causes which hold back the further growth of harvest yield under certain conditions and do not provide for increased reproduction of soil fertility and the reliable protection of the environment.

All of these are issues which take on great urgency and our scientists will do everything necessary to resolve them successfully.

Considering the exclusive importance of the tasks which face the new service, everywhere throughout the nation its material and technical base is becoming stronger, and it is being supplied with the newest equipment. It was emphasized that great hopes are placed upon self-propelled machines for bringing out the fertilizers. Models of such machines are constructed and prepared in Belorussia. According to the conclusion of the Western Machine Building Station, the MVU-30 scattering machine is 8-10-fold more productive than the IROM-4 series machine and 1.5-fold greater than an airplane. The presence of the wide arched tires with

low pressure provides for good traction under the most difficult field conditions, including the early spring period. The machine has removable equipment which allows it to be used for bringing in liquid fertilizer and chemical protection for plants. Calculations show that 10-15 of such machines and 20-30 vehicle transfer machines will allow the principle amount of mineral fertilizers to be brought in on time to all farms in our central rayon.

In Belorussia they will also conduct other measures for increasing the fertility of the soil. Scientific research confirms that, for example, because of hydro-technical land reclamation of excessively moist soil along with the wide chemicalization and the use of other factors for increasing harvests, their productivity can be raised to 60 quintals of feed units per hectare. Therefore, in the coming five-year plan it is intended to build new drying systems on an area of 355,000 hectares and to repair existing systems on an area of 145,000 hectares. The scope of limed acidic soil will be increased.

The CPSU Central Committee and USSR Council of Ministers in the decree "On the Establishment of a Single Specialized Agro-chemical Service in the Nation," placed upon it the entire responsibility for the scientifically based utilization of mineral and organic fertilizers, chemical and biological means for protecting plants, melioratives of the soil, feed additives, growth substances and other means of chemicalization in agriculture on all kolkhozes, sovkhoses and other state agricultural enterprises.

The organizational period for creating the Sel'khozkhimiya service has basically been completed. This is why all of those who spoke at the seminar conference underscored the idea that the time for getting organized has passed and all of the subdivisions of Sel'khozkhimiya must in the most active way possible join in the struggle for the maximum harvest yield of all crops since this is required by the decree of the CPSU Central Committee and USSR Council of Ministers. Sel'khozkhimiya, agricultural organizations, kolkhozes and sovkhoses are all one whole and a single branch. They have the same goals and tasks. This is a completely concrete and totally responsible sector of work and the leaders of all agricultural organizations must always remember this. The task of oblast administrations of agriculture and agricultural ministries is to more quickly transfer from general principles of leadership, to which some of them have become accustomed, to concrete forms of managing agriculture.

The chemicalization of agriculture is unequalled as a rapid-operating and powerful lever for harvest growth. The task is to resolve as quickly as possible questions of the sharp increase in the effective use of chemicalization means in agriculture. It is necessary to hurry, and not postpone until tomorrow what can be done today.

At the seminar conference they emphasized that upon distributing capital investments for 1981 and for the 11th Five-Year Plan, comprehensive consideration must be given to farming interests, with primary preference to the needs of chemicalization as a most important factor in the intensification of agriculture.

It was noted that some of the Sel'khozkhimiya workers are concerned not with the harvest but with profits and rentability. Without rejecting the business system

of Sel'khozkhimiya and the attributes connected with cost accounting, participants of the seminar expressed an opinion that the only criteria for evaluating the work of Sel'khozkhimiya must be the harvest yield of the fields--the final result and not the intermediate one. Therefore it is necessary properly and completely to refine the contact between Sel'khozkhimiya and kolkhozes and sovkhoses, issues of their mutual responsibility for the final result and for the harvest. This is a great and essentially chief issue of work for the single agro-chemical service and it must be given the necessary attention. Soyuzsel'khozkhimiya leaders in the centers and localities, scholars and, of course, oblast, kray and republic leaders must work towards this ideal.

The successful realization of the resolutions of the October (1980) Plenum of the CPSU Central Committee can be done only with the active participation and creative initiative on the part of all agricultural specialists, experts and scientists. At the seminar conference they emphasized that the organization of an independent chemicalization service requires that the role and responsibility of agricultural experts be increased for each technological operation, and for the efficient utilization of land. Constant, highly qualified work must be done by the agricultural experts, particularly now when the chemicalization of agriculture has become the baby of agricultural organizations themselves. We are speaking of agronomists in kolkhozes and sovkhoses as well as those in Sel'khozkhimiya in the rayon, since both must equally answer for the final result, for the harvest. The broad intensification of agricultural production, the increasing investments of the state and kolkhozes into agriculture objectively require the further growth in the efficiency and quality of the work of each collective. It is difficult to over-emphasize the role of agronomists in this work. The strategic slogan of the party--the struggle for efficiency and quality must be the chief slogan of agricultural specialists, agronomists, and all rural workers. One must always remember that the great responsibility for improving farming and field crops has been placed upon the agronomists. "The culture of the field," said K. A. Timiryazev, "has always gone hand-in-hand with the culture of man."

The conclusions of that which was said are obvious. Workers of the rayons, oblasts, krays and republic organizations of Soyuzsel'khozkhimiya must develop a definite plan of action, more actively take upon themselves a concern for the harvest, operate as a unit, together with all rural workers, kolkhoz workers and those of the sovkhoses. Their work and interests are the work and interests of the Soyuzsel'khozkhimiya workers.

Participants of the seminar conference became familiar with the practical activity of the Stolbtsovskiy and Nesvizhskiy rayons of the Sel'khozkhimiya Association, and with the Minsk Oblast Chemicalization Station. They visited the chemical base of the Minsk Rayon Agro-chemistry Association, the chemicalization point of the Zhdanovichskiy Hothouse Combine sovkhos and the Belorussian Scientific Research Institute of Soil Cultivation and Agro-Chemistry. The guests were shown new highly productive machines in action in carrying out mineral fertilizers and liquid fertilizers to the field. Among them were the machines built in the Belorussian Republic.

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CSO: 1824

TILLING AND CROPPING TECHNOLOGY

DURUM WHEAT PRODUCTION PROBLEMS DISCUSSED

Moscow SEL'SKAYA ZHIZN' in Russian 24 Sep 80 p 2

[Article by N. Zhevak, secretary of the Krasnokutskiy Rayon CPSU Committee and N. Gushchin, senior scientific worker at the Krasnokutsk Breeding-Experimental Station: "Barriers in the Path of Durum Wheat"]

[Text] Durum wheat -- the principal raw material of the macaroni industry -- has been under cultivation since olden times. At the present time, the principal regions in which it is being grown include the Volga area, southern Urals, western and northern Kazakhstan and Altayskiy Kray. This is a vast zone and one marked by favorable conditions for the production of high quality grain. However, by no means is full use being made of this potential and, as a result, the country's requirements for raw materials for the macaroni industry are still not being satisfied.

A most alarming development is the fact that the growing areas for durum wheat have unexpectedly begun "to move" into oblasts having less favorable natural conditions for the production of high quality grain. Thus, rather considerable increases have taken place in such areas in Penzenskaya, Tambovskaya and Lipetskaya oblasts and in the Tatarskaya and Bashkirskaya ASSR's. However, these areas have decreased and are continuing to decrease in size in the principal zones where the best durum wheat is produced -- in Saratovskaya, Volgogradskaya and Orenburgskaya oblasts and in many regions of Kazakhstan.

We consider it necessary to repeat once again: under arid conditions, durum wheat furnishes high quality grain having a high protein and gluten content and high vitreousness and it does so more frequently than under damp conditions. In addition, it meets the requirements for 1st and 2d class of the marketing standard. The payment for such grain is 70-100 percent more than that for soft wheat. By way of an example, allow us to cite certain materials for our region. In 1978, the farms sowed Krasnokutka-6 durum wheat on an area of 22,881 hectares and obtained an average of 21.5 quintals of good quality grain per hectare. Approximately 63 percent of this grain -- 315,000 quintals -- was sold to the state at a very high price.

Excellent economic results were realized from the sale of durum wheat grain by the workers at the Put' K Kommunizmu Kolkhoz (the chief agronomist is V.A. Skripnikov), where 22.7 quintals were obtained from each of 977 hectares. Almost one half of the

grain delivered to the grain receiving point was graded 1st class, with a 100 percent bonus being added to the price for soft wheat.

The Chkalovskiy Sovkhoz (the chief agronomist is I.A. Lavrenko) obtained 28.2 quintals per hectare from an area of 1,000 hectares. Of the grain delivered to the grain receiving point, 90 percent was graded 1st class, with an additional payment of 70 percent.

The Shalnovskiy Sovkhoz, where the chief agronomist is a young specialist by the name of A.M. Krasnikov, also obtained a high yield -- 29.1 quintals from each of 3,671 hectares. The farm received an additional payment of 243,730 rubles for having supplied 19,933 quintals of 1st class grain.

Overall, 287,000 quintals of 1st class grain were sold throughout the region and the farms were paid 2.75 million rubles in the form of additional payments for quality and for having over-fulfilled their plans for durum wheat grain. The net above-plan profit for the region amounted to 120 rubles per hectare of durum wheat planting.

However, we cannot overlook the fact that the communists are still not solving the problem with regard to fulfillment of plans in terms of "volume." However, they are applying themselves to the cultivation of the "marzani" crop in a very restrained manner. This is the principal reason why difficulties are being experienced with regard to increasing the production of high quality durum wheat grain.

In order to increase the yields of valuable grain, we believe it is necessary first of all to determine correctly the regime in which it is to be grown, establish an efficient plan for the production of durum wheat grain and to exercise control over this plan in a very strict manner.

For each field area in this crop, a complex of agrotechnical methods should be developed and implemented for the purpose of ensuring that high yields of excellent quality grain will be obtained. In the process, great importance must be attached to the selection of the correct productive crop.

In the grain-fallow crop rotation plans for the steppe Tavoliya region in Saratovskaya Oblast, durum wheat will be grown on fields from which winter crops have been obtained or on fallow lands not used for winter crops.

For the purpose of raising the cropping power, the protein content in the grain and the gluten yield, the use of mineral fertilizers should be considered mandatory. For the more deep right-bank regions, the nitrogen dosage must be 40 and the phosphorus dosage -- 60 kilograms of active agent; for the left-bank and more arid regions: nitrogen -- 20, phosphorus -- 40 kilograms. It is best to apply all of the nitrogen and the principal dosage of phosphorus during the autumn at the time of the principal plowing work.

If shield bugs are present, the plantings should be treated with metaphos and vofatse and, for combating weeds, weed control work should be carried out on the plantings using the 2.4D herbicide in a dosage of 1.0-1.5 kilograms per hectare.

The most important period from the standpoint of preserving the quality of the grain is the harvest period. Moreover, this period is important not only because of the harvest schedules but also owing to the methods employed and the manner in which the grain is processed on the threshing floor. If the grain is allowed to become overripe or if the harvesting and drying conditions are unfavorable, the vitreousness of the grain decreases: it loses its luster. Durum wheat is harvested during the phase of waxy ripeness and as rapidly as possible. When the height of the plants and the density of the grass stand so permit, a preference is shown for the two-stage harvesting method. The picking up of the cut grain commences immediately following the drying out of the windrows. Even just a light rainfall tends to lower the quality of the grain and also its vitreousness. Frequent and alternating dampening and drying out conditions are especially harmful.

The first sign used for evaluating quality is that of the color of the grain (the diverse nature of its coloring). A great amount of subjectivity enters into a determination of this sign -- no appropriate scale is available. This sign should be reinforced by a reference to vitreousness, a sign which is easily expressed in terms of quantity. For example, an overall vitreousness of 90 percent should be established for 1st class, 85 percent for 2d class and 80-75 percent for 3d class. This problem should be coordinated with the requirements of the technologists.

The second sign is the amount of gluten in the grain. The task of determining this sign involves laborious work and thus many mistakes and inaccuracies are still occurring in the laboratories. However, the amount of gluten is greatly dependent upon the protein content in the grain. It is precisely this sign which is employed in many countries for determining the quality of grain. In turn, a determination of the protein content by means of the nitrogen content (according to K'yel'dal') is considerably easier, simpler and more accurate. Many other methods are available which make it possible to carry out the work more rapidly and with sufficient accuracy. At the present time, with chemical laboratories having been created in all zones throughout the country, laboratories which are capable of carrying out hundreds and thousands of analyses of feed, soil, fertilizer and so forth, it should be a rather easy task to include chemists in the work of determining the nitrogen content in the grain, at least for a definite period of time.

The third sign -- the quality of the gluten (its group). At first glance, the durum wheat requirements in terms of this sign are not high -- 2d group. But it is in making a determination as to a definite group that vexing mistakes occur.

I recall an incident that occurred in Volgogradskaya Oblast involving a number of grain receiving points -- Sebyakovskiy, Golubinskiy, Uryupinsk and others -- large quantities of durum wheat having a high gluten content (26-28 and more percent) were procured and assigned to the 3d group in terms of its quality. We requested samples of this wheat through the Ministry of Procurements and we analyzed them for macaroni quality at the Odessa Breeding and Genetics Institute.

The data from this analysis revealed that the macaroni prepared from wheat that was rejected according to the gluten group was in fact distinguished by wonderful qualities! And the producers were stunned. Such mistakes constitute one of the reasons why Volgogradskaya Oblast, which in the not too distant past grew durum wheat on 300,000-400,000 hectares, reduced its plantings last year to 50,000-55,000 hectares, thus eliminating itself as a supplier of durum wheat.

We believe that the sign for the durum wheat gluten group can be ignored. Grain having a high protein and gluten content can only be suitable for the macaroni industry!

A great role is played by plant breeding with regard to improving the quality of durum wheat. One variety, even a good one such as Khar'kovskaya-46, is incapable of meeting the conditions found in all of the regions of the vast zone in which durum wheat is grown. True, new varieties have already appeared which promise to bring about considerable improvements in improving quality. Thus the Krasnokutka-6 variety of the Krasnokutsk Station, according to estimates by the state committee, is furnishing grain having a higher gluten content, while the Shortandinskaya-75 variety of VNIIEKh (All-Union Scientific Research Institute of Grain Farming) possesses stability in terms of some signs under changing growing conditions. Nevertheless, our breeding of durum wheat is still being carried out in a weak manner; it still lags considerably behind the rates for the breeding of soft wheat. This work must be intensified and concentrated in regions considered to be more favorable for the growing of durum wheat -- Saratov (Krasnyy Kut), Orenburg, Shortandy, Kustanay, Altay. These points must also be supplied with the equipment required for accelerating the rates for breeding work and for better technological evaluations of grain quality. Further improvements should be carried out in the system for stimulating the production of high quality grain. Finally, the time is at hand for developing greater interest among workers attached to grain receiving points in the fulfillment and over-fulfillment of the procurement plans for durum wheat.

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CSO: 1824

TILLING AND CROPPING TECHNOLOGY

FIN COLTERS RECOMMENDED FOR TILLAGE IN UKRAINE, BELORUSSIA

[Editorial Report] Equipment operators engaged in plowing in the Ukraine and Belorussia have been faced with less than favorable conditions for the sowing of winter crops and plowing of winter fallow. The agricultural newspapers Kiev SIL'S'KI VISTI in Ukrainian on page 1 of its 14 September 1980 issue and Minsk SEL'SKAYA GAZETA in Russian on page 3 of its 22 August 1980 issue report that plows are suffering excessive wear this year due to the unusual amount of crop residues in the soil. This condition, which resulted from the severe lodging of grain crops along with the poor gathering up of the straw, has severely decreased the quality of tillage and productivity of equipment.

According to the newspaper articles equipment operators have attempted to remedy this by removing the jointer or skim colter, but this in turn makes for poorer turning of crop residues into the soil. The fin colter is recommended for use in place of the jointer or skim colter since use of the fin colter makes for good stubble tillage. It has the advantage of reducing the space between plow bottoms, which guarantees more reliable working of the soil on stretches strewn with plant residues. The fin colter consists of a moldboard and a special bracket fastened to the top of the plow bottom with three plowshare bolts.

Both articles continue with further, more technical details of assembly, mounting and operation and both give credit for development of the fin colter to the Odessa plant for agricultural machine building and the western machine testing station of the Central Scientific Research Institute for the Mechanization and the Electrification of Agriculture.

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Jan 19, 1981
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